



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,158	03/18/2004	Che-Kuei Mai	4006-283	4136

22429 7590 11/08/2005

LOWE HAUPTMAN GILMAN AND BERNER, LLP  
1700 DIAGONAL ROAD  
SUITE 300 /310  
ALEXANDRIA, VA 22314

EXAMINER

MACARTHUR, VICTOR L

ART UNIT PAPER NUMBER

3679

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/803,158

Applicant(s)

MAI ET AL.

Examiner

Victor MacArthur

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

Claim 9 is objected to because of the following informalities:

- The limitation “adhesive material layer” occurs twice in claim 9 in a redundant double inclusive manner. The second recitation of the phrase should be deleted to improve claim clarity.

Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6, 7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Buecker (U.S. Patent 6,131,362).

Claim 6. Buecker discloses (fig.7) a bolt fastening structure, the bolt fastening structure comprising: a plurality of layers of an overlapped plate (30, 92, 94); and at least one screw hole (hole receiving 47) formed through said plurality of layers of plates. Note that the Buecker structure is fully capable of performing the intended use limitation of being for improving fastening of a plate of a LCD module in as much as the applicant's invention is.

Art Unit: 3679

Claim 7. Buecker discloses the bolt fastening structure of claim 6, wherein said plurality of layers of said overlapped plate are formed by bends (col.3, ll.41, 44, 59 and 67) in the plate. Beucker does not expressly disclose that the bends were formed by a process of bending. However, the specific method of forming is not germane to the issue of patentability of the device itself in a product claim. Therefore, the limitation "formed by bending" has been given only limited patentable weight. See MPEP § 2113.

Claim 10. Buecker discloses the bolt fastening structure of claim 6, wherein the screw hole extends through the plurality of layers of the overlapped plate. The specific method of forming is not germane to the issue of patentability of the device itself in a product claim. Therefore, the limitation "formed by punching" has been given only limited patentable weight. See MPEP § 2113.

Claim 11. The bolt fastening structure of claim 6, wherein the plate is a metal plate (col.3, l.14).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buecker (U.S. Patent 6,131,362).

Art Unit: 3679

Claim 1. Buecker discloses (fig.7) a method for enhancing bolt fastening, the steps of the method comprising: forming a plate (12) with bends (col.3, ll.41, 44, 59 and 67) so as to overlap a plurality of layers of the plate in a predetermined screw hole position (position of 12 shown in fig.7); and forming at least one screw hole (holes receiving 47) in the predetermined screw hole position. Note that the Buecker method is fully capable of performing the intended use limitation of being for the improving fastening of a plate of a LCD module in as much as the applicant's invention is. Buecker does not expressly state that the bends were formed by a process of bending, though they appear to have been so formed. The examiner takes official notice that the process of bending is very well known in the art for the benefit of creating bends in plates.

Claim 2. Buecker discloses the method of claim 1, wherein the predetermined screw hole position is located on an upper, lower, or side edge of a frame (i.e., side edge of frame 10).

Claim 3. Buecker discloses the method of claim 1, further comprising a fastening layer (adhesive, col.4, ll.1-10 and col.6, ll.15-20) applied in a gap between said plurality of layers of the plate as an alternative to screws. Buecker states that fastening elements like screws and adhesives are important for increasing joint strength but does not expressly state that they are used together at the same time. One of ordinary skill in the art would have easily recognized that a joint fastened by both screws and adhesives at the same time would inherently be stronger than a joint fastened by only one or the other. Therefore, it would have been obvious to one at the time the invention was made to modify the Buecker method to include both screws and adhesives at the same time, for the purpose of increasing joint strength.

Claim 4. Buecker discloses the method of claim 3, wherein the fastening layer is adhesive glue (col.4, ll.1-10 and col.6, ll.15-20). Note that the examiner takes the limitation “glue” to mean “an adhesive substance” in accordance with Merriam-Webster’s Collegiate Dictionary Tenth Edition.

Claim 8. Buecker discloses the method of claim 6, further comprising at least one adhesive material layer (adhesive, col.4, ll.1-10 and col.6, ll.15-20) disposed between the plurality of layers of the plate as an alternative to screws. Buecker states that fastening elements like screws and adhesives are important for increasing joint strength but does not expressly state that they are used together at the same time. One of ordinary skill in the art would have easily recognized that a joint fastened by both screws and adhesives at the same time would inherently be stronger than a joint fastened by only one or the other. Therefore, it would have been obvious to one at the time the invention was made to modify the Buecker method to include both screws and adhesives at the same time, for the purpose of increasing joint strength.

Claim 9. Buecker discloses the bolt fastening structure of claim 8, wherein the adhesive material layer is an adhesive material layer.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buecker (U.S. Patent 6,131,362) in view of Lanham (U.S. Patent 4,411,552).

Claim 5. Buecker discloses the method of claim 1, but is silent on the matter of how the screw hole is formed. Therefore, one concerned with making the Buecker invention would be necessarily required and motivated to search the hole forming art for the methodology missing from Buecker. Lanham teaches (col.2, ll.44-45) that screw holes should be formed by punching

Art Unit: 3679

(col.2, ll.44-45). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to form the Buecker holes by punching, as taught by Lanham, since one would be required to use such methodology in order to make the Buecker invention.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Referring to bolt fastening structures:

Minogue U.S. Patent 3,414,305

Simpson U.S. Patent 4,597,234

Gustavsson U.S. Patent 5,027,576

Seccombe U.S. Patent 5,535,569

An U.S. Patent 6,392,724

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (571) 272-7085.

The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-3600.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.



VLM

November 1, 2005



DANIEL P. STODOLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600